LESSON 3.8

NAME _____ DATE _____

Challenge: Skills and Applications

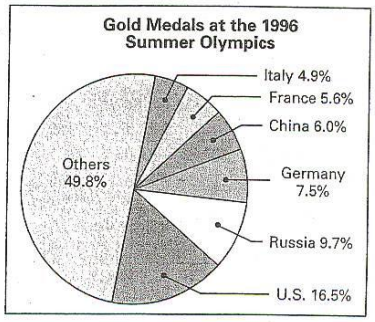
For use with pages 180–186

In Exercises 1–3, convert the measure. Round your answer to the nearest tenth.

1. 40 ft/sec to mi/h (1 mi = 5280 ft)
2. 65 lb/ft^3 to kg/L (1 kg $\approx$ 2.205 lb; 1 ft^3 $\approx$ 28.3 L)
3. 0.75 in./h to mm/min (1 in. $\approx$ 25.4 mm)
4. While driving down the Aegean coast you see a sign that says gasoline costs 229,704 Turkish Lira (TL) per liter (L). The current exchange rate is 410,000 TL to a United States dollar. How much does the gasoline cost in dollars per gallon? (1 gal $\approx$ 3.784 L) Round to the nearest cent.

In Exercises 5–7, use the circle graph showing percentages of gold medals won in the 1996 summer Olympics. Round to the nearest whole medal.

5. Germany won 20 gold medals. How many gold medals were awarded in all?
6. Use your answer to Exercise 5. How many gold medals did the United States win?
7. The numbers of gold medals won in the 1996 Olympics should be whole numbers. Why are the answers in Exercises 5 and 6 decimals?



In Exercises 8–10, use the following information.

In a survey of voter opinion, a radio station found that 22 callers either were against building a new sewage treatment plant or had no opinion. The probability that a random caller would be in favor of the plant was 60%.

8. Write a verbal model that describes this situation.
9. Use the verbal model in Exercise 8 to write an algebraic model.
10. Find the number of callers in favor of the plant.

Lesson 3.8